

The other is the California Botanical Club, organized in San Francisco March 5, much more pretentious in point of membership, its roll bearing at last accounts one hundred and twenty-five names. On the list are the names of some well-known botanists of the Pacific Coast; but the majority are ladies who are interested in ferns and flowers. The club has a field of usefulness, in teaching and interesting in botany those who have leisure, and thus enlisting a larger number in the work of collecting and exploration—a work which is, in this state, only well begun.—WILLIS L. JEPSON, *Berkeley, Cal.*

## NOTES AND NEWS.

PROFESSOR DR. GOEBEL has accepted a call to the University of Munich as Professor of Botany and Director of the Botanic Garden.

MR. ARTHUR LISTER, in *Journal of Botany* (Sept.), has published some notes on Mycetozoa, accompanied by four plates. The paper is a notice of the species not included in Dr. Cooke's "Myxomycetes of Great Britain," and contains the description of three new species.

THE HERBARIUM of the late Dr. C. C. Parry has now been arranged for sale, together with an extensive library of botanical works. A catalogue has been issued, which shows 6,780 species, represented by about 18,000 specimens. Of these 5,290 species are North American. Full information can be obtained from Mrs. E. R. Parry, Davenport, Iowa.

IN ANSWER to a request from the city council of Cleveland, Ohio, the U. S. Department of Agriculture detailed Prof. J. C. Arthur, as an agent of the Forestry Division, to examine into the causes of the injury and death of the shade trees of that city. His report ascribes the injury to the excessive quantities of coal smoke, more particularly to the noxious gases which accompany the smoke.

SPHÆROTHECA LANESTRIS Hark. has been supposed to be confined to California, and to a single host, *Quercus agrifolia*, but both the conidial and the mature forms have been found this season in Mississippi, by S. M. Tracy. It occurs on *Quercus prinus*, *alba*, *macrocarpa* and *falcata*, and is rather abundant. The conidial form has also been found in Alabama on *Q. alba*, by Mr. Geo. E. Atkinson.

FR. JOHOW, who has given much attention to phanerogamous parasites, proposes the following grouping for them, based upon habit: 1. euphytoid parasites, erect land plants, including five families with 35 genera and 400 species; 2. lianoid parasites, including the genus *Cuscuta* with 77 species and *Cassytha* with about 20; 3. epiphytoid parasites, tree-dwellers, including 500 Loranthaceæ and 15–18 antarctic Santalaceæ; 4. fungoid parasites, including about 60 species of the two families Balanophoreæ and Cytinaceæ.

AT A MEETING of the Royal Society of Canada, held May 29th last, a club was formed by the botanists present, to be known as the Botanical Club of Canada. It has no connection with the Royal Society other than that which all scientific and literary societies enjoy.

The object is to adopt means, by concerted local efforts and otherwise, to promote the exploration of the flora of every portion of British America, to publish complete lists of the same in local papers as the work goes on, and to have these lists collected and carefully examined in order to arrive at the correct knowledge of the precise character of the flora and its geographical distribution.

The method is to stimulate, with the least possible paraphernalia of constitution or rules, increased activity in the botanists in each locality, to create a corps of collecting botanists wherever there may be few or none at present, to encourage the formation of field clubs, to publish lists of local floras in the local press, etc., etc. Any person interested in the study of botany is eligible.

The general officers for the year are: Dr. George Lawson, of Halifax, president; A. H. MacKay, of Halifax, secretary and treasurer. There is also a secretary for each province, who will, in turn, appoint local secretaries in such localities as he may deem expedient. It is the duty of the local secretaries to stimulate botanical research in their districts, and to endeavor to secure such notes on occurrence and situation of specimens, as may eventually enable the club to publish a special catalogue of the flora of the region. We wish the new club success.

M. GUSTAVE CHAUVEAUD has investigated in great detail the non-articulated laticiferous tissue and the account of his study forms parts 1 and 2 of the *Annales des Sciences Naturelles*, Botanique, 7, xiv, pp. 160, 8 plates. The subject has long needed investigation. We translate his conclusions:

The continuous primitive laticiferous apparatus is formed by special initial cells which are the first elements of the embryo differentiated. These initial cells, rarely four, sometimes eight, frequently more numerous, are of constant number in each species. They appear always in the same transverse plane (the nodal plane), and are formed in most cases at the expense of the pericycle. They elongate into tubes and become much branched, constituting in the embryo a complex system often of great regularity. Later this system increases and furnishes the laticiferous system of the seedling and the adult plant. In case the plant acquires secondary formations, these formations are traversed by laticiferous tubes springing from the branches of the primitive laticiferous system near the generating layers. The appearance of new initial cells has not been observed after the first stages of embryonic development. The tubes do not show anastomoses nor transverse partitions. The branches in certain species are distributed through the pith as well as through the bark. Their terminations are not localized in a special tissue; they are found in the leaves and cotyledons either in the midst of the parenchyma or underneath the palisade cells or even more frequently in contact with the epidermis. In certain plants the continuous tubes seem to precede the appearance of the articulated tubes. Finally, they are not met with except in the Euphorbiaceæ, Urticaceæ, Apocynaceæ and Asclepiadaceæ, where they serve to characterize certain tribes.